

Title: Echo Cancellation Through Auxiliary-Vector Filtering Inventor: Vladimir N. Georgiev Application No. 09/835,154 Page 2 of 3 REPLACEMENT SHEET

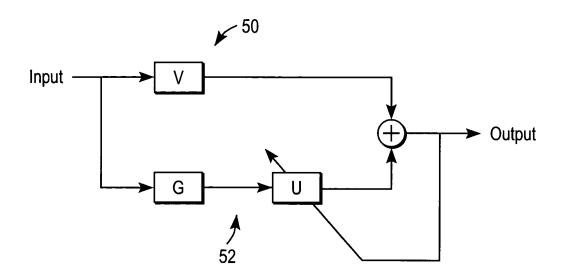


FIG. 2

Obtain Input Values 70 x[n] and y[n] Form Matrix 72 $R = Y^T * Y$ Form Vector 74 $V = Y^T * X$ Form Auxiliary Vector 76 $G = (R * V - (V^{T} * R * V) * V) / norm (R * V - (V^{T} * R * V) * V)$ Form Scalar 78 $U = (G^T * R * V) / (G^T * R * G)$ - 84 Form Vector 80 W = V - U * G**Determine -82** $e[n] = y[n] - y^*[n]$

FIG. 3

Apply Filter Coefficients w[n]
To Transmitted Signal And

Subtract Result From Received Signal y[n]

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